

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-66 (cancelled)

67. (new) A computerized method for retrieving data for a set of objects prior to an explicit request for access to the data, the set of objects containing at least one object, each object having an attribute, the method comprising:

creating a structure context description that describes the set of objects;

associating the structure context description with each object in the set; and

fetching related object data for objects in the set from physical storage upon an access to an attribute of one object in the set, wherein the fetching comprises

first retrieving requested object data using the attribute,

retrieving object data related to the first requested object data using the attribute, and

placing in cache the related object data for future use.

68. (new) The computerized method as recited in claim 67, further comprising storing the structure context description in one of memory of a client application program, memory allocated to a data storage system, and a table of a relational database.

69. (new) The computerized method as recited in claim 67, comprising fetching by an object repository related object data for objects in the set.

70. (new) The computerized method as recited in claim 67, wherein fetching related object data for the set and accessing an attribute of the first object occur asynchronously.

71. (new) A computerized system comprising:

a computer comprising a processor, a memory, and a computer-readable medium operatively coupled together;

an operating environment executing in the processor from the computer readable medium;

a persistent storage system operative to store objects having attributes and structures; and

a data storage system executing in the processor from the computer-readable medium and under the control of the operating environment, said data storage system operative to maintain objects in the persistent storage system and further operative to retrieve data for an object or related objects prior to an explicit request for access to the data,

such that a first object for a requested data item is first retrieved and remaining related objects to the requested data item are then retrieved and placed in a cache for future use.

72. (new) A computer-readable medium having computer readable instructions to cause a computer to perform a method comprising:

creating a structure context description that describes a set of objects each having an attribute;

associating the structure context description with each object in the set; and

fetching related object data for objects in the set from physical storage upon an access to an attribute of one object in the set, wherein the fetching comprises

first retrieving requested object data using the attribute,

retrieving object data related to the first requested object data using the
attribute, and
placing in cache the related object data for future use.

73. (new) A computerized method for retrieving data for an object prior to an explicit request for access to the data, the method comprising:

creating a structure context description that describes data items in the object;
associating the structure context description with each data item in the object; and
fetching at least one related data item in the object from physical storage upon an access to a data item in the object, wherein the fetching comprises
retrieving the accessed the data item,
retrieving the related data items described by the structure context description,
and
placing in cache the related data items for future use.

74. (new) A computer-readable medium having computer readable instructions to cause a computer to perform a method comprising:

creating a structure context description that describes data items in an object;
associating the structure context description with each data item in the object; and
fetching at least one related data item in the object from physical storage upon an access to a data item in the object, wherein the fetching comprises
retrieving the accessed the data item,

retrieving the related data items described by the structure context description,
and
placing in cache the related data items for future use.

75. (new) A computerized system comprising:
a computer comprising a processor, a memory, and a computer-readable medium
operatively coupled together;
an operating environment executing in the processor from the computer readable
medium;
a persistent storage system operative to store an object; and
a data storage system executing in the processor from the computer-readable medium
and under the control of the operating environment, said data storage system operative to
maintain objects in the persistent storage system and further operative to retrieve data for the
object prior to an explicit request for access to the data,
such that a requested data item in the object is first retrieved and remaining
related data items to the requested data item are then retrieved and placed in a cache
for future use.